

REMARKS

Applicants provide herewith the requested full paragraphs in which the few typographical amendment were made.

Please note that the line numbers for the corrections have changed a bit from the line numbers identified in the Response of October 15, the line numbers becoming progressively further down the page as the page numbers increase.

This is apparently due to looking at the present electronic copy vs the hard copy as filed. Applicants' undersigned Counsel has changed computer platforms since the Application was created in 2001, recently migrating to MS XP. We have noted some variations in formatting when calling up archived electronic documents. But no new matter has been added, and the amendments proposed in the October 15 Response are the same here.

CONCLUSION


This case should now be in complete condition for allowance, and favorable action of allowance of all claims present in the case is respectfully urged.

The Examiner is requested to contact undersigned counsel at the number indicated to resolve any issues relating to this Response.

Respectfully submitted,
Jacques M. Dulin, et al.

Date: November 29, 2002

by:


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encl: a) Appendix – Amendment Mark-Ups
b) Post card for PTO to acknowledge receipt via Express Mail

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventors: **Jacques M. Dulin, et al.**

Examiner: **Jacques H Louis-Jacques**

Application SN: **09/845, 016**

GAU: **3661**

Date Filed: **April 27, 2001**

Tel: **703 – 305 - 9757**

For: **HOT VEHICLE SAFETY SYSTEM AND METHODS OF PREVENTING
PASSENGER ENTRAPMENT AND HEAT SUFFOCATION**

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APPENDIX A

Marked-up Version of Amended Specification Paragraphs

1) Amendment to Page 6, line 25, in the paragraph beginning on line 23 and extending through line 32:

As an alternative to using a thermistor, thermocouple, thermostat or other temperature sensor for temperature determination, the interior temperature of the vehicle can be monitored with the ultrasound sensor, e.g. as set forth in Ultrasound Transducer Temperature Compensation Method, Apparatus and Program case 24347-0041, USSN 09/325,242[124], filed June 3, 1999, **now US Patent 6,314,380 B1, issued November 6, 2001,** the disclosure of which is hereby incorporated by reference. Where, for example, the vehicle is stopped at night and the temperature gradually declines over a period of time, the slow ping mode can be further reduced to an intermittent ping, sleep mode, or switched to Off. This would continue until the temperature begins to rise to, or near a pre-set temperature threshold, at which temperature level, two things happen: First, the ping rate increases (if necessary for full discrimination), and second, the return signal is analyzed for presence of an occupant.

2) Amendment to Page 7, line 30, in the paragraph starting on line 29 and extending through line 31:

In other automotive occupancy sensors, the return signal from the ultrasound itself can be analyzed for the temperature in the vehicle interior as well as the presence and/or location of an occupant, as set forth in SN 09/325,242[124], filed June 3, 1999, **now US Patent 6,314,380 B1, issued November 6, 2001.**

3) Amendment to Page 9, line 8, in the paragraph beginning on line 2 and extending through line 14 (the amendment is a hyphen added in line 8:

In the above-identified U.S. patent 5,873,597, the AOS sensors are located in a console mounted in the headliner just above the front windshield. However, in presently pending Serial No. 09/292,170, filed April 15, 1999) a linear transducer assembly is disclosed in which an array of low cost US transducers may be used. This array can extend not only to "view" the driver and passenger seat, but also the rear seating area. In that invention, the ultrasound return signal is chopped off so that the ultrasound is "looking at" an object present only in the "H-Zone" ("Head Zone"), defined as a zone from shoulder height and above. This height-defined zone sensing is accomplished by "cut off" of the tail end of return echo signals. A linear or other array of transducers such as shown in that application may be used in conjunction with the safety system of this invention, but in this case, all of the signal is used (none is discarded) so that the ultrasound sensor is looking below the H-zone onto the seat and floor of the vehicle to detect the presence of an occupant, say a small child, or pet, which is thrashing in a car seat or moving, perhaps feebly, on the car floor.

4) Amendment to Page 13, line 28, in the paragraph beginning on line 29, and extending through line 4 on page 14:

It should be understood that a variety of hierarchies of safety activities can be designed and selected. Thus, for example, relief actions 30 can be programmed into the controller 12 if there is no response, or an inadequate response, to the warnings 24. Or the warnings can be **skipped** [shipped] entirely, as for example where passengers are babies, or persons who otherwise would not understand or who could not take appropriate action. In an important alternative, the driver can input a weighting factor to the evaluation and decision algorithm matrix of the controller 12, or can turn off selected outputs, such as interior warnings by a switch on the dash or other appropriate input, such as a dash-mounted keyboard, personal digital assistant, or the like.

5) Amendment to Page 15, line 22, in the paragraph beginning on line 22 and extending through line 2 on page 16:

Figure 2 is a flowchart[s] illustrating method aspects of the invention, including operating programs therefor, and more particularly the present best mode embodiment of operation of system 10, including: monitoring and determination of occupancy state; vehicle motion; interior passenger and/or load space temperature; and warning, relief and "trapped" passenger release logic points of the control program. From an initial "off" condition 132, the controller and its

operations program is initiated 80, e.g., at ignition "On" by driver action (on switch); or automatically. The automatic start of the program can be, for instance, as the result of preselected engine operating conditions being satisfied upon which engine microprocessor (not shown) outputs a signal to the controller 12 (Figure 1). The program initiates a check of the temperature of the interior passenger/load space(s) 84. It should be understood that the same or similar control program logic diagram of Figure 2 may be run for each space, or the spaces may be polled sequentially with each polling sequence being followed by the method steps of Fig. 2 relating to that space.

6) Amendment to Page 17, line 18, in the paragraph beginning on page 17, line 11 and extending through line 19:

If the response 108 is negative or unsatisfactory, the recent temperature is monitored 116, and the occupancy state monitoring rate is increased 118. A database 120 can be consulted, or a database built through controller monitoring and input of data vs. time over an ensuing, predetermined time period. The controller algorithm preferably includes a weighting function, which includes, for example, such factors as number of occupants, interior temperature, response to Warnings I and II history, and the like. The weighting function is embedded in an active criteria matrix as part of the controller algorithm 122. If the cooling meets a **preset** [present] criteria, there is a loop back and recycle 124 to the increased temperature and occupancy state monitoring 116, 118, 120.

End of Appendix.